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EXAMINER				
DIAZ, THOMAS C				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/519,982

Applicant(s)

HAAB ET AL.

Examiner

Thomas Diaz

Art Unit

4171

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 17-29 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 17-29 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 January 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)
- 3) ☒ Information Disclosure Statement(s) (PTO/SF/US)
- Paper No(s)/Mail Date 02/11/2005
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date ____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____

DETAILED ACTION

Drawings

1. Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2. The disclosure is objected to because of the following informalities: The specification should not directly reference claims, because the claims can change during the examination process. The specification should include headings for the appropriate sections as described in CFR 37 § 1.77. The number "24" in line 27 of page 10 in the specification is incorrect. It appears applicant misprinted the number; the drive wheel should be the number "25".

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 17-29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 17,

The claim is stated in a very confusing manner and it is very difficult to ascertain what should not be given patentable weight. For example, when the applicant uses the language "is guided", it is unclear whether this is functional language directed to how the motor works or whether the motor structurally guided above the running surfaces. Furthermore, in that part of the claim it is difficult to find the transition between the functional language and the positive limitations in the claim. In addition, in future claims the applicant appears to claim structure that appeared to be positively claimed in claim 17, which further confuses the interpretation of the claim. For example, in claim 23 the applicant claims guiding or running rollers which are already claimed as supporting rollers in claim 17. When interpreted in light of the specification it is unclear what the difference between these rollers is. The examiner suggests rewriting the claim in accordance with 37 CFR 1.75(i) so as to make clear what is being positively claimed.

Since all other claims depend upon claim 17, they are also indefinite. However, below are a few claims that have additional reasons for being indefinite.

Regarding claim 21,

It is unclear what the applicant is referring to when claiming "the shaft of the...". The examiner finds it difficult to distinguish what shaft the applicant is referring to since no additional structure is mentioned.

Regarding claim 28,

It is unclear what drive assembly the applicant is referring to since the applicant already claims a drive assembly in claim 17. In addition, since the drive apparatus according to claim 17 has drive assemblies it is unclear what the relationship between the drive assembly and the drive apparatus is and which one contains the other.

Regarding claim 29,

It is unclear how the separating element is connected to the drive assembly since the applicant already claims in claim 17 that the separating element is connected to the drive apparatus. Considering the different components in claims 17 and 28, it's difficult to understand their general relationship and the structure of the apparatus being claimed.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 17-19, 21-24, 26-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krähenbühl et al. (US patent 6,233,878) in view of Finke (US patent 6,516,566).

Applicant discloses the apparatus seen below:

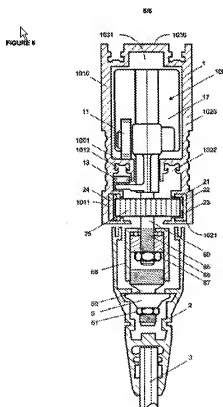


Figure i- Applicant's figure.

Regarding claim 17, as best understood,

For purpose of examination, the examiner takes the position that applicant claims an apparatus with:

- at least two drive assemblies which have,
 - supporting rollers guided in a guide rail,
 - the guide rail has a center piece two side pieces,
 - a drive shaft aligned at right angles to the running direction of the drive unit,
 - an electric motor in the first drive assembly connected to a drive wheel which engages a toothed element within the guide rail in the element. The axis of the motor lies between the supporting rollers and at right angles to the plane defined by the running surface of the rollers. The motor shaft is connected to the transmission via the drive shaft and they are both aligned in parallel to the axis defined above,
 - an attachment element that holds the separating element.

Krähenbühl et al. teaches a similar apparatus to applicant comprising:

- at least 2 drive assemblies (fig.5, 14, 30),
- supporting rollers 15, and 16 which are guided in a guide rail 11 seen in figure 1,

- a guide rail having a center piece and two side pieces as depicted in figure 1 and it also provides running surfaces for the rollers.
- a drive shaft (labeled in figure 1 below) which is aligned at right angles to the running direction of the rollers,
- a drive wheel (fig.1, 25) which can be rotated via the drive shaft and said drive wheel engages a toothed element (fig. 1, 24) that is arranged within the inner wall of the guide rail. This drive wheel could be considered a transmission since it transmits torque and allows the apparatus to move laterally,
- an electric motor (fig.2, 27) located in the drive module for actuating the apparatus,
- an attachment element (fig.1, 12) which holds a separating element (fig.1, 10).

Krähenbühl et al. fails to teach the same positioning of the electric motor as the applicant. The electric motor in Krähenbühl et al. is located in a drive module (fig.1, 17) which is located beneath the rollers and running surfaces.

Finke teaches a drive unit (fig. 1, 4) used in a similar apparatus as applicant's disclosed invention. This drive unit consists of transmission means, a motor, control units, and several other mechanical, electrical and electronic components as described in (col.6, lines 34-42). The drive unit is located inside the housing (fig.1, 1) in order to create a housing that can hold all the

components of the device. This simplifies the invention and eliminates the need for another component to house the drive module or unit (col.1, lines 40-46). It also helps the structural integrity of the housing due to its compactness. The drive unit is used to drive a drive pinion along a toothed belt (col. 6, lines 24-26).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Finke with Krähenbühl et al. to create a more rigid, and compact apparatus which houses a motor and transmission under a single housing. Furthermore, it would have been obvious to arrange the motor and transmission in Krähenbühl et al. in such a way as it would fit the arrangement of shafts already within the apparatus by connecting the motor shaft of the motor used in Finke to the transmission or toothed element and drive shaft in Krähenbühl et al. for the purpose of creating an automatically movable apparatus.

Regarding claim 18,

As discussed above, Finke teaches an electric motor with an integrated transmission inside of the housing for actuating moving partition.

Regarding claim 19,

Applicant claims the shaft of the transmission being connected to the drive shift of the apparatus.

As discussed in above in the argument for claim 17, it would have been obvious to one of ordinary skill in the art to connect the shaft of the transmission means used by Finke to the drive shaft in Krähenbühl et al. in order to create a

working device such as the one disclosed in Krähenbühl et al. with all working components in a single housing.

Regarding claim 21, as best understood,

For purpose of examination the examiner takes the position that the applicant is claiming a motor shaft mounted on one or both ends of the electric motor and aligned vertically in the drive apparatus.

As previously discussed, it would have been obvious to align the motor shaft of the electric motor used in Finke to fit the structure of the apparatus used in Krähenbühl et al. in order to maintain the same alignment being used by Krähenbühl et al. and fit within the housing structure.

Regarding claim 22,

The housing structure shown in Krähenbühl et al. (fig.1, 11) could be considered an integral body suitable for holding the electric motor as claimed by the applicant; especially since the motor used in Finke is made to be placed within a housing structure or frame.

Regarding claim 23,

Krähenbühl et al. teaches running rollers in the basic structure of the apparatus (fig.1, 16) which are used to guide the apparatus along a given path. These rollers correspond to applicant's guide rollers (fig.6, 13) seen above.

Regarding claim 24,

Krähenbühl et al. teaches a conducting rail which extends in the longitudinal direction of the guide rail (col. 5, lines 5-7) corresponding to

applicant's bus bar. By definition a bus bar is equivalent to a strip of conducting material and therefore could be considered a conducting rail. Additionally, Krähenbühl et al. teaches conductors or current collectors (fig. 1, 22, 23) which are arranged in the drive apparatus as well which corresponds to applicants current collectors.

Regarding claims 26 and 27,

Applicant claims a control unit comprising of a flexible circuit which is arranged within the housing of the electric motor.

As discussed above, the drive unit developed by Finke and being combined with Krähenbühl et al. contains electronic components in particular open-loop/closed-loop control systems and sensors. It is well known that such devices by definition contain an electronic circuit. It would be obvious to one of ordinary skill in art to connect this control unit to the current collectors disclosed in Krähenbühl et al. for the purpose of supplying the unit with power.

Regarding claims 28 and 29, as best understood,

For purpose of examination, the examiner takes the position that when the applicant claims a drive assembly in claim 28, the applicant is referring to the apparatus without including separating element which is later claimed in claim 29.

Krähenbühl et al. discloses a drive assembly in figure 5, item 14 which has connected to it a separating element (fig.1, 10) in the form of a sliding wall.

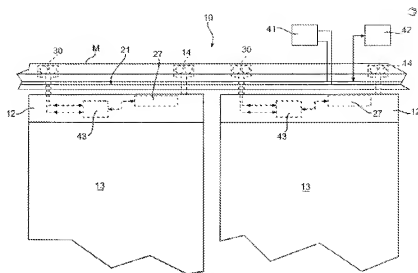


FIG. 5

Figure ii- Krahenbühl et al. reference.

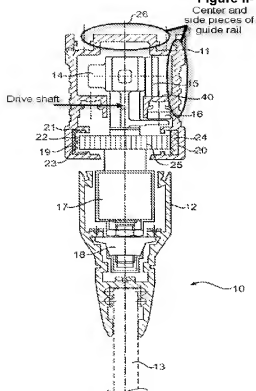


FIG. 1

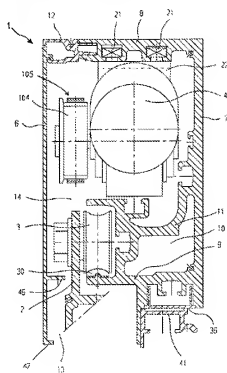


FIG. 1

Figure iii- Krähenbühl et al. reference.

Figure iv- Finke's reference

7. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Krähenbühl et al. in view of Finke as applied to claims 17-19, 21-24, 26, 27 above, and further in view of Schwingle (US patent 6098695).

Regarding claim 20,

Applicant claims a rotatable attachment element connected to the first drive assembly.

Krähenbühl et al. and Finke fail to teach that the attachment element is rotatably connected to the body of the first drive assembly.

Schwingle teaches a similar apparatus for a folding door in which he has a rotatable attachment element (fig. 5, 72) for the purpose of allowing the folding door to open and close by pivoting about a vertical axis (col. 3, lines 63-65).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Schwingle with Krähenbühl et al. and Finke to enable the additional degrees of freedom to the separating element.

FIG. 5

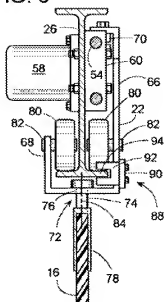


Figure v- Schwingle's apparatus

8. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Krähenbühl et al. in view of Finke as applied to claims 17-19, 21-24, 26, 27 above, and further in view of Bischof et al. (US patent 6082053).

Regarding claim 25,

Applicant claims a bus bar being located on the top of the guide rail or top of the apparatus.

Krähenbühl et al. fails to teach the exact location of the bus bar and current collectors to be arranged on the upper face of the drive assembly.

Bischof et al. teaches bus bars and current collectors (fig. 3a, 9,10,13,14) which are arranged at the upper face of the drive assembly for the purpose of taking up a small amount of space vertically and horizontally, thus simplifying

manufacturing (col. 6, lines 25-33). The location of the bus bars also helps for the maneuverability of the movable partition (col.5, lines 9-23).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teaching of Bischof et al. with the teachings of Krähenbühl et al. and Finke to maximize maneuverability and minimize the use of space and to prevent the need for limit switches for the motors (col.6, lines 7-8).

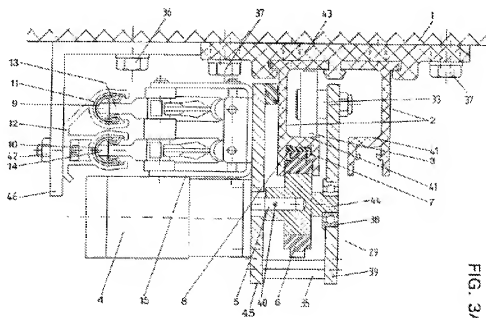


FIG. 3A

Figure vi- Bischof's apparatus

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Other separating element devices as well as components within the current application.

Art Unit: 4171

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas Diaz whose telephone number is (571)270-5461. The examiner can normally be reached on Monday-Thursday 7:30am-6:00pm, Friday's off..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Larry Tarazano can be reached on (571)272-1515. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/D. Lawrence Tarazano/
Supervisory Patent Examiner, Art Unit 4171

Thomas Diaz
Examiner
Art Unit 4171